

AMENDMENTS to the CLAIMS

1. (Currently Amended): A transfective liquid crystal display device, comprising:

a substrate having a switching portion, a reflective portion and a transmissive portion, a pixel region being defined to include the reflective and transmissive portions, wherein the switching portion, a reflective portion and a transmissive portion do not overlap each other;

a gate line on the substrate;

a data line crossing the gate line;

a thin film transistor connected to the gate line and the data line and including a gate electrode, an active layer, and source and drain electrodes, the thin film transistor and the drain electrode on the switching portion, and the drain electrode being an electrode directly connected to a drain region of the thin film transistor and not overlapping the pixel region, wherein the thin film transistor is disposed within the switching portion;

a plurality of uneven patterns consisting of a first organic material layer within the reflective portion, the uneven patterns partially covering the substrate, wherein the plurality of uneven patterns are disposed within the reflective portion;

a second organic material layer on the first organic material layer, the second organic material layer having an open portion at the transmissive portion;

a reflective layer on the second organic material layer having a transmissive hole at the open portion, the reflective layer disposed on the pixel region and not overlapping the drain electrode;

a pixel electrode on the reflective layer, wherein the pixel electrode is in direct contact with the drain electrode;

an opposing substrate facing the substrate; and

a common electrode on an inner surface of the opposing substrate, the common electrode being substantially flat.

2. (Original): The device according to claim 1, wherein the first and second organic material layers are formed from a photosensitive material.

3. (Original): The device according to claim 2, wherein the photosensitive material comprises a photo-acrylic resin.

4. (Original): The device according to claim 1, further comprising an inorganic material layer covering the gate line, the data line, and the thin film transistor.

5. (Original): The device according to claim 4, wherein the inorganic material layer is formed of one of silicon nitride and silicon oxide.

6-7. (Canceled).

8. (Previously Presented): The device according to claim 1, further comprising a gate pad connected to the gate line, a data pad connected to the data line, and a capacitor electrode overlapping the gate line.

9. (Original): The device according to claim 8, wherein the second organic material layer has a drain contact hole exposing the drain electrode, a capacitor contact hole exposing the capacitor electrode, a gate pad contact hole exposing the gate pad, and a data pad contact hole exposing the data pad.

10. (Currently Amended): A transfective liquid crystal display device, comprising:

first and second substrates facing into and spaced apart from each other, the first and second substrates having a switching portion, a reflective portion and a transmissive portion, a pixel region being defined to include the reflective and transmissive portions, wherein the switching portion, a reflective portion and a transmissive portion do not overlap each other;

a gate line on an inner surface of the first substrate;

a data line crossing the gate line;

a thin film transistor connected to the gate line and the data line and including a gate electrode, an active layer, and source and drain electrodes, the drain electrode on the switching portion, and the drain electrode being an electrode directly connected to a drain region of the thin film transistor and not overlapping the pixel region, wherein the thin film transistor is disposed within the switching portion;

a first organic material layer in the pixel region, the first organic material layer having a plurality of uneven patterns at the reflective portion, wherein the plurality of uneven patterns are disposed within the reflective portion;

a second organic material layer on the first organic material layer, the second organic material layer having an open portion at the transmissive portion;

a reflective layer on the second organic material layer having a transmissive hole corresponding to the open portion, the reflective layer disposed on the pixel region and not overlapping the drain electrode;

a pixel electrode on the reflective layer, wherein the pixel electrode is in direct contact with the drain electrode;

a common electrode on an inner surface of the second substrate, the common electrode being substantially flat; and

a liquid crystal layer between the pixel electrode and the common electrode,

wherein the pixel electrode and the common electrode are separated by a first cell gap in the transmissive portion, and a second cell gap in the reflective portion, and the first cell gap is twice greater than the second cell gap.

11. (Previously Presented): The device according to claim 10, wherein the uneven patterns have a height equal to or less than the second cell gap.

12. (Currently Amended): A method of fabricating a transfective liquid crystal display device, comprising:

forming a gate line on a substrate having a switching portion, a reflective portion and a transmissive portion, a pixel region being defined to include the reflective and transmissive portions, wherein the switching portion, a reflective portion and a transmissive portion do not overlap each other;

forming a data line crossing the gate line;

forming a thin film transistor connected to the gate line and the data line and including a gate electrode, an active layer, and source and drain electrodes, the drain electrode on the switching portion, and the drain electrode being an electrode directly connected to a drain region of the thin film transistor and not overlapping the pixel region, wherein the thin film transistor is disposed within the switching portion;

forming a first photosensitive organic material layer on the substrate;

forming a plurality of uneven patterns consisting of a first organic layer within the reflective portion by performing an exposure and development process on the first photosensitive organic material layer, the uneven patterns partially covering the substrate, wherein the reflective portion does not overlap the switching portion;

forming a second photosensitive organic material layer on the substrate including the first organic material layer;

forming a second organic material layer having an open portion corresponding to the transmissive portion by performing an exposure and development process on the second photosensitive organic material layer;

forming a reflective layer on the second photosensitive organic material layer having a transmissive hole corresponding to the open portion, the reflective layer disposed on the pixel region and not overlapping the drain electrode;

forming a pixel electrode on the reflective layer, wherein the pixel electrode is in direct contact with the drain electrode; and

forming a common electrode on an opposing substrate facing the substrate, wherein the common electrode is substantially flat.

13. (Original): The method according to claim 12, wherein the first and second photosensitive material layers are formed of a photo-acrylic resin.

14. (Original): The method according to claim 12, further comprising forming an inorganic material layer covering the gate line, the data line, and the thin film transistor.

15. (Original): The method according to claim 14, wherein the inorganic material layer is formed of one of silicon nitride and silicon oxide.

16. (Canceled).

17. (Original): The method according to claim 12, further comprising forming a gate pad connected to the gate line, a data pad connected to the data line, and a capacitor electrode overlapping the gate line.

18. (Original): The method according to claim 17, wherein the second organic material layer comprises a drain contact hole exposing the drain electrode, a capacitor contact hole exposing the capacitor electrode, a gate pad contact hole exposing the gate pad, and a data pad contact hole exposing the data pad.

19. (Currently Amended): A method of fabricating a transfective liquid crystal display device, comprising:

forming a gate line on a first substrate having a switching portion, a reflective portion and a transmissive portion, a pixel region being defined to include the reflective and transmissive portions, wherein the switching portion, a reflective portion and a transmissive portion do not overlap each other;

forming a data line crossing the gate line;

forming a thin film transistor connected to the gate line and the data line and including a gate electrode, an active layer, and source and drain electrodes, the drain electrode on the switching portion, and the drain electrode being an electrode directly connected to a drain region of the thin film transistor and not overlapping the pixel region, wherein the thin film transistor is disposed within the switching portion;

forming a first photosensitive organic material layer on the first substrate;

forming a first organic material layer having a plurality of uneven patterns at the reflective portion by performing an exposure and development process on the first photosensitive organic material layer, wherein the plurality of uneven patterns are disposed within the reflective portion;

forming a second photosensitive organic material layer on the first substrate having the first organic material layer;

forming a second organic material layer having an open portion corresponding to the transmissive portion by performing an exposure and development process on the second photosensitive organic material layer;

forming a reflective layer on the second organic material layer having a transmissive hole corresponding to the open portion, the reflective layer disposed on the pixel region and not overlapping the drain electrode;

forming a pixel electrode on the reflective layer, wherein the pixel electrode is in direct contact with the drain electrode;

forming a common electrode on a second substrate, wherein the common electrode is substantially flat;

attaching the first and second substrates to each other; and

forming a liquid crystal layer between the pixel electrode and the common electrode,

wherein the pixel electrode and the common electrode are separated by a first cell gap in the transmissive portion and a second cell gap in the reflective portion, and the first cell gap is twice greater than the second cell gap.

20. (Original): The method according to claim 19, wherein the plurality of uneven patterns are formed to have a height equal to or less than the second cell gap.

21. (Currently Amended): A transfective liquid crystal display device, comprising:

a substrate having a switching portion, a reflective portion and a transmissive portion, a pixel region being defined to include the reflective and transmissive portions, wherein the switching portion, a reflective portion and a transmissive portion do not overlap each other;

a gate line on the substrate;

a data line crossing the gate line;

a thin film transistor connected to the gate line and the data line and including a gate electrode, an active layer, and source and drain electrodes, the drain electrode on the switching portion, and the drain electrode being an electrode directly connected to a drain region of the thin film transistor and not overlapping the pixel region, wherein the plurality of uneven patterns are disposed within the reflective portion;

an inorganic material layer covering substantially the entire surface of the substrate including the gate line, the data line, and the thin film transistor;

a plurality of uneven patterns covering portions of the inorganic material layer within the reflective portion excluding a peripheral portion of the pixel region, the uneven patterns consisting of a first organic material, wherein the reflective portion does not overlap the switching portion;

a second organic material layer covering the first organic material layer and the uncovered portions of the inorganic material layer, the second organic material layer having an open portion at the transmissive portion; and

a reflective layer on the second organic material layer having a transmissive hole at the open portion, the reflective layer disposed on the pixel region and not overlapping the drain electrode;

a pixel electrode on the reflective layer, wherein the pixel electrode is in direct contact with the drain electrode;

an opposing substrate facing the substrate; and

a common electrode on an inner surface of the opposing substrate, the common electrode being substantially flat.